

REMARKS

The Final Action dated July 24, 2003 in this Application has been carefully considered and the above amendments and following remarks are presented in a sincere attempt to place this Application in condition for allowance. Claims 1, 10, and 19 have been amended. Reconsideration and allowance is respectfully requested in light of the foregoing amendments and the following remarks.

Rejection of Claims 1-24 under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected Claims 1-24 under 35 U.S.C. 112, Second Paragraph, on the asserted basis that the language of the claims is indefinite. In particular, the Examiner contends that the language "substantially hollow housing displacing an exterior volume and having walls forming a cavity therebetween having an interior volume at least 50% as great as said exterior volume" is unclear.

Although the Applicant regards the present language as clear, in deference to the Examiner, the Applicant has amended Claims 1, 10 and 19, where the objected to language, or language similar to the objected language, is found. In particular, Applicant has amended the objected to language in Claim 1 to recite "a substantially hollow housing displacing an exterior displacement and having walls forming a cavity therebetween having an interior volume that, prior to placement of any material in the interior cavity, comprises the major portion of said exterior displacement." The objected to language in Claims 10 and 19 has been amended in a similar manner.

"Displacement" is a well-understood term meaning the volume of air, water or space, etc. that would be displaced or otherwise taken up by an object placed in the medium. In this case, the object is a golf club head, the exterior of which has a certain displacement which can be measured on a volumetric basis and compared directly to the volume of the interior cavity of the club head, prior to placement of any material in the interior cavity. Accordingly, it is respectfully submitted that the amended language resolves the questions of indefiniteness made by the Examiner.

These amendments are not believed to reduce the scope of the claims and are not made for purposes of patentability, since the previous language of the claims was also believed to meet the requirements of 35 U.S.C. 112, Second Paragraph.

Rejection of Claims 1-24 under 35 U.S.C. 112, First Paragraph

The Examiner has rejected Claims 1-24 under 35 U.S.C. 112, First Paragraph, on the asserted basis that the claims fail to comply with the written description requirement. Specifically, the Examiner contends that the language “substantially hollow housing displacing an exterior volume and having walls forming a cavity therebetween having an interior volume at least 50% as great as said exterior volume” in Claims 1, 10 and 19, is new matter.

This rejection is respectfully traversed. The specification makes clear that the golf club head of the present invention is “hollow,” formed by a sole and wall portion 112 and a crown portion 114 which define a body 116 having an interior cavity 118. The figures are also, of course, disclosures to one of ordinary skill in the art. Figs. 1 and 5 clearly show that the club head of the present invention is substantially hollow and that the volume of the interior cavity is such that it comprises the major portion of the exterior displacement of the housing on a volumetric basis, prior to placement of any material into the interior cavity. In both Figs. 1 and 5, an embodiment of the invention configured as a “metal wood” is depicted. In Fig. 1, the embodiment of the club head is shown with a representative cut-away portion revealing the interior cavity 118 inside the relatively thin walls 112. In Fig. 5, the club head is shown with its crown portion 114 removed to show the entirety of the interior cavity and the inside face of the wall of crown portion 114. As can be seen, the interior cavity only has weights 512, 514, etc. When the weights are not considered in the volume of the cavity, the walls 112 are depicted as having a relative thickness that is sufficiently thin such that the interior cavity 118 will clearly comprise the major portion of the volumetric displacement of the housing of the club head, prior to placement of any material in the interior cavity.

In addition, the amendment of Claims 1, 10 and 19 to state that it is interior volume that comprises the major portion of said exterior displacement, “prior to placement of any material in the interior cavity,” resolves any concern that the claims could be construed to contemplate that, if other structure or material was added to the interior cavity, that such structure or material would be considered in determining the relative volume of the interior cavity to the exterior displacement. For these reasons, it is respectfully submitted that the claims 1, 10 and 19 do not recite new matter and reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Accordingly, these claims meet the requirements of 35 U.S.C. 112, Section 1 in all respects.

Although the claims have been amended, it is respectfully pointed out that the foregoing amendments are made to facilitate allowance of the application, not for purposes of patentability, as it is Applicant's position that the prior claims also met the requirements of 35 U.S.C. 112, Section 1 and Section 2 and no reduction in claim scope is intended.

Rejection of Claims 1-24 Under 35 U.S.C. 102(b)

The Examiner has rejected claims 1-24 over under 35 U.S.C. 102(b) as assertedly being anticipated by one or more of Sun '879, Churchward, Mills and/or Held. However, in view of the Examiner's prior rejections of the claims under 35 U.S.C. 112, Sections 1 and 2, the Examiner has apparently not addressed the limitation of the claims defining the relative proportion of the volume taken up by the interior cavity to the exterior displacement of the housing.

As pointed out in Applicant's prior Amendment filed May 1, 2003, the contents of which are incorporated by reference, none of the prior art of record discloses golf club heads having selectively closeable ports permitting placement of material to adjust the center of gravity of the golf club head, wherein the volume of the interior cavity comprises the major portion of the exterior displacement of the housing on a volumetric basis, prior to placement of any material in the interior cavity. Rather, the club heads having selectively closeable ports all have cavities that comprise a minor portion of the exterior displacement of the club head on a volumetric basis.

This distinction lends important advantages to Applicant's invention over the prior art. Although it is desirable to adjust to center of gravity of a club head to suit an individual user, the added weight can change the overall moment of interia of the club head, and hence its overall swing characteristics and ball flight characteristics. For example, a heavier head may be harder to swing. In the prior art, most of the volume of the club head is comprised of the solid club head material (i.e., steel, aluminum, titanium or the like) which is relatively heavy. Since so much of the club head is solid, heavy material, the prior art undesirably requires relatively heavy weights in order to significantly adjust the center of gravity. This could make the club head harder to swing, or otherwise affect overall inertia, which can affect ball flight characteristics such as distance. By contrast, because Applicant's interior cavity comprises most of the volumetric displacement of Applicant's club head housing, relatively little weight is required to make a significant change in the center of gravity of the club head, minimizing the amount of undesired change to the overall swing characteristics of the club and allowing a substantially increased ability to move the weights in

significantly different locations, affording the user the opportunity to fine tune the driver to his or her needs and to varying playing conditions not possible with all known prior art. The result is significantly enhanced ability to adjust certain distance, accuracy and forgiveness characteristics of the club, such as a more precisely aligned center of gravity for the individual's optimum swing characteristics, creating more efficient energy transfer between club head and ball, and for other ball flight control factors such as imparting specific types of spin, or hitting the ball high or low, to the left or right, relatively independently of other characteristics that would relate more purely to distance, such as overall mass and moment of inertia, which are strongly influenced by the overall weight of the club head, and also of the energy-transferring efficiency of the structure and material of the face and other portions of the head.

For the foregoing reasons, as well as the reasons stated in Applicant's Amendment dated May 1, 2003, it is respectfully submitted that the invention defined by Claims 1-24 is neither anticipated by, nor obvious in view of, '879, Churchward, Mills and/or Held. Accordingly withdrawal of the rejections of Claims 1-24 claims under 35 U.S.C. 102(b) and full allowance of Claims 1-24 are believed in order and is courteously solicited.

Prior Art Not Applied to Claims

The prior art made of record and not applied to the claims has also been considered. However, none of this art discloses or suggests "a golf club head having a substantially hollow housing displacing an exterior displacement and having walls forming a cavity therebetween having an interior volume that, prior to placement of any material in the interior cavity, comprises the major portion of said exterior displacement; and a port formed through the housing to allow placement of material at one or more positions on an inside surface of at least one of said walls to adjust the center of gravity of the golf club head" as recited in Claim 1, nor does any of this art disclose or suggest a golf club head having the similar limitations of Claims 10 and 19. Accordingly, it is respectfully submitted that none of this art, alone or in any combination with any of the art of record, anticipates or renders obvious the invention defined by Claims 1, 10 or 19, or their respective dependent claims.

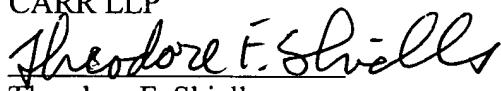
For the foregoing reasons, it is respectfully submitted that Claims 1-24 are in condition for full allowance and such is courteously solicited.

Please charge the fee of \$465.00 for a three months extension of time for a small entity, and any other additional fees incurred by reason of this amendment, to our Deposit Account No. 50-0605 of CARR LLP.

Respectfully submitted,

CARR LLP

Date: Jan 2, 2004


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